

Municipality/Organization: Town of Ayer

EPA NPDES Permit Number: MAR04-1179

MaDEP Transmittal Number: W- 040750

**Annual Report Number
& Reporting Period: No. 14: May 1, 2016 -April 30, 2017**

NPDES PII Small MS4 General Permit Annual Report

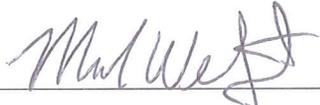
Part I. General Information

Contact Person: Mark Wetzel, P.E. Title: Superintendent of Public Works

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Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: 

Printed Name: Mark Wetzel, P.E., CPSWQ

Title: Superintendent, Department of Public Works

Date: April 27, 2017

Part II. Self-Assessment

The Town of Ayer, Massachusetts has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions. The Superintendent of Public Works directly managed the stormwater program with various Town Departments, as needed, to implement each of the BMPs. The DPW maintains the stormwater hotline and stormwater information on their website (<http://www.ayer.ma.us/stormwater-department>).

The Town would like to note the following additional activities and progress during the Year 14 reporting period:

- Ayer has been designated a “Green Community” of the Commonwealth of Massachusetts since July 2011. A Green Community Committee was established by the Board of Selectmen to investigate opportunities to develop programs and projects to foster energy conservation, energy efficiency, renewable energy generation and sustainability planning throughout the community. The Committee meets on a regular basis and members have been focused on energy savings, energy conservation, energy efficiency, renewable energy generation and sustainability planning throughout the community. The Committee shall develop and recommend approaches for influencing the town residents and businesses to maximize their environmental sustainability through educational outreach, information programs and incentives. The committee is currently working to pursue grants for energy efficiency.
- “A Cleaner Ayer”, an area wide Cleanup, will be conducted on April 29 and 30, 2017. Approximately 50 residents typically participate and approximately 200 lbs of trash and recycling is typically collected.
- In Year 13, the Town’s consultant conducted an assessment of Pine Meadow Pond, Flannagan Pond, Sandy Pond, Long Pond, Balch Pond, and Grove Pond; including aquatic vegetation surveys, water quality sampling, pollutant loading analysis, aquatic vegetation management, and a risk evaluation for secondary recreation contact (Grove Pond only). The Town began implementing the recommendations from the studies including regular water quality monitoring of the Ponds and planned construction of two BMPs.
- The Town has phased out its “Commonwealth Connects” program and is implementing a new program called “Mobile 311”. This is a map-based GIS system that includes a mobile application to log a service request for the Highway Department with photos and locations which are then uploaded to a real-time map and integrated with existing GIS data. This program has already been implemented for use within the DPW and is planned to soon be released to the public for incident reporting.
- The Town continued to evaluate improvements to the Main Street Corridor, from the rotary (Frederick Carlton Circle) to the Devens Town line, which includes streetscape reconstruction and evaluation of LID approaches for stormwater management. This evaluation is part of the recommendations from the Main Street Corridor Streetscape Plan. Most recently, the Town hired a consultant to design the reconstruction of East Main Street, from Harvard Road to Main Street. The Town is working to fund the project through the MassDOT Transportation Improvement Program (TIP). A new drainage system for East Main Street is currently at the 25% design phase.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
PE1	Educational materials	DPW	Create educational flyers re stormwater	<p>DPW adapted existing materials available through EPA’s website. Fact sheets were distributed or displayed at the DPW office, Town Hall and will be repopulated this spring.</p> <p>Continued to use flyers for educating a neighborhood that experienced a dog waste management issue. The flyers advised not to put waste in the storm drains and the environmental consequences of these actions. These flyers focus on certain neighborhoods, based on CB inspection results. This information was also posted on the Town’s website and sent out to residents in an “e-mail blast”.</p>	<p>Continue to display existing materials and evaluate the need for additional or new educational materials to address specific behaviors and target audiences. Track the distribution of take-away materials.</p>
Revised			Distribute flyers to residents at two or more events; create a stormwater webpage	<p>DPW maintained a “Stormwater Information” webpage under the DPW home page which includes links to stormwater fact sheets and the Stormwater Hotline number.</p> <p>The town ended its “Commonwealth Connects” program and has instituted a new system called Mobile 311 this year. The Town web page also has a service request form for citizens to log and track stormwater issues. Carbon copies of each service request are stored and tracked under the highway department.</p>	<p>Evaluate a tracking system for calls to the Stormwater Hotline. Continue using the Mobile311 program to track service requests.</p> <p>Consider tracking service requests on GIS system when the GIS system is completed in the future.</p>

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
PE2 Revised	Cable TV info spots	DPW	Create 1 infomercial about stormwater by 5/06 Summer 2007	The 10 copies of the EPA video “After the Storm” were still available for viewing at the DPW and at the High School video library. DPW maintained “tips” for stormwater education on the DPW Stormwater Information webpage. Public hearings that included stormwater issues and stormwater presentations were aired on the cable channel.	Continue to communicate with the Library, School Department, and Cable Access Channel ways in which they can use the video and promote its use to raise public awareness. Consider tracking numbers of times “After the Storm” is rented.
PE3 Revised	Drain Stenciling	DPW	Stencil storm drains by 5/06 25% of storm drains marked by Fall 2007	In Permit Year 12, DPW marked a total of 28 storm drains. DPW maintains a list of marked storm drain locations. Storm drains are re-stenciled as needed in the next permit year. In previous years, DPW stenciled and/or marked storm drains for a total of over 800 storm drains. Storm drains will be re-stenciled as needed in 2017.	Continue to refresh stencils and markers as needed. Maintain a database of marked locations.
PE4 Revised	Lawn Care Workshops	SWSC/DPW	Hold 1 workshop by 5/07	Completed in 2007. No workshops were conducted in Year 14.	Workshops are planned to occur in spring 2017.
PE5 Revised	Educational Displays on stormwater mgt	SWSC/DPW	Create 1 display for use at town functions by 5/08	Various materials were displayed/ updated at the Town Hall, DPW, Library and schools (see BMP PE 1). The DPW was unable to give a talk to classes at the Page Hill Elementary School in 2016 due to a conflict with the school’s curriculum. DPW will continue working with the Page Hill Elementary School to conduct this event in 2017.	Continue to update and/or refresh posters/materials annually and continue to display them at public places. The DPW will attempt to schedule a talk for classes at the Page Hill Elementary School in spring 2017, with information on stormwater including a demonstration with the stormwater model. Continue to evaluate additional opportunities/events to display educational materials. Incorporate stormwater model with classroom education programs.

1a. Additions

None at this time.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
PP1 Revised	Establish Committee	Board of Selectmen	Est. committee by 11/03 July 2007	<p>As discussed previously, the stormwater enterprise fund was dissolved by vote at the Annual Town Meeting on May 11, 2015. It was decided to use the general fund to fund the stormwater program.</p> <p>Ayer was designated a “Green Community” of the Commonwealth of Massachusetts in July 2011. A Green Community Committee was established by the Board of Selectmen to investigate opportunities to develop programs and projects to foster energy conservation, energy efficiency, renewable energy generation and sustainability planning throughout the community. The town is currently working to pursue grants for energy efficiency.</p>	<p>The Stormwater Committee will continue to evaluate and support the stormwater management program.</p> <p>The Green Community Committee will evaluate opportunities to include sustainable practices throughout the community, including stormwater management and water conservation.</p> <p>DPW will continue to coordinate directly with Town Departments for BMP tasks.</p>
PP2 Revised	Public Info Meetings	SWSC/DPW	2 meetings in 2004 One meeting annually, # of people attended	<p>The Dam and Pond Committee continued to hold monthly meetings that were posted at the Town Hall in accordance with state regulations.</p> <p>DPW presented the stormwater program and previous utility efforts at the following meetings in 2016:</p> <ul style="list-style-type: none"> • Baystate Roads (Oct. 20 & 21) • Board of Selectmen (Dec. 6) 	<p>Continue to provide adequate public notice and host Public Informational Meetings annually to discuss stormwater issues and needs, including funding.</p> <p>Continue to track the number of attendees at each meeting.</p>
PP3	Annual Roadside Cleanup	SWSC/DPW	Schedule 1 cleanup day by 4/05	“A Cleaner Ayer”, an area wide Cleanup will be conducted on April 29	Continue to organize at least one cleanup activity annually and track

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
Revised			1 cleanup annually, # participants	and 30, 2017. In the previous years approximately 200 lbs of trash/recycling was collected. Laurie Sabol, a town volunteer who also heads the Recycling Committee, coordinated the program. An article with the results of this year’s cleanup event will be published in the Ayer Public Spirit and on the Town’s website. In past year, the Middlesex House of Corrections conducted roadside cleanups once during the year.	participation and volume collected. Consider streams and additional priority cleanup priority areas.
PP4	Establish neighborhood watch groups	SWSC/DPW	Create 4 groups by 4/06	The Stormwater Hotline was advertised on local TV and posted on the “Stormwater Information” webpage under the DPW home page.	Continue to promote the hotline through the web page, local TV, and stormwater educational materials.
Revised	Establish a Stormwater Hotline		Hotline established, # calls received & follow-up actions		Continue to record calls and follow-up actions to address stormwater issues.
PP5	Reforestation	ConCom	Establish plan to require/encourage planting of cleared areas	Currently there is no funding source for a native tree replanting program, but a tree planting program is under review to implement a tree planting program in the elementary school through the Town Recreation Department. The local Boy Scout organization plans to do planting work at the Town Water Tank in summer 2017.	Continue to evaluate potential program funding sources and complete projects as opportunities arise.
Revised	Native Tree Replanting Program	ConCom, Tree Warden, and Recreation Department		ConCom requires native tree/shrub species to be planted to fulfill the requirements of specific wetland permits.	

2a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
PP6 Revised	Hazardous Waste Collection Program	Ayer Recycling Committee	Conduct yearly hazardous waste collection day (HWCD)	<p>The Town continued to participate with the 9 communities in the Devens Region for the “Devens Regional Household Hazardous Products Collection Program” that is open to Ayer residents twice a month. The transfer station also accepts oil and antifreeze at this time.</p> <p>71 Ayer residents and small businesses delivered 4,902 lbs of HHW in Year 14.</p>	<p>Conduct hazardous waste collections as part of the regional program and incorporate/advertise information to prevent illegal dumping.</p> <p>Continue tracking Ayer resident participation and waste collection results.</p>
PP7 Revised	Mercury Waste Collection for Residents	Ayer Recycling Committee & DPW	Make mercury waste collection available to residents, # materials collected	<p>Posters were displayed to raise awareness of mercury collection at the Transfer Station and the DPW Office. Information related to the collection of mercury products at the Transfer Station was advertised on the DPW web page.</p> <p>The Town also has a permanent mercury thermometer exchange at the Ayer Council on Aging each weekday. The Town continued to work with Covanta to collect mercury products by setting up a collection box at the Transfer Station.</p>	<p>Continue to promote mercury waste collection boxes through posters and the DPW web page.</p> <p>Continue to track results of mercury collection activities.</p>

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
ID1	System Mapping	DPW	Complete system map by 3/05	The Town previously updated the drainage map with all known and visible catch basins and outfalls. 90-95% of the outfalls have been mapped using GPS equipment and all catchments for the drainage system have been delineated. Drafting of GPS maps for connectivity is 95% complete.	Complete the storm drain system map to show the connections between drainage structures and outfalls. Continue to update the drainage map as structures are located and as new developments are constructed.
Revised	Drainage System Mapping		9/06		
ID2	ID illicit discharges	DPW	Conduct inspections by 11/05	No illicit discharges were reported in Year 14. In Year 12 the Town was notified of pet waste being disposed into storm drains in a local neighborhood. The matter was resolved and continues to be monitored. All catch basins in the target neighborhoods were marked with “Do Not Dump” labels in Year 13. Field investigations, outfall and catch basin inspections were implemented during this permit year. All outfalls have been inspected. Catch basin cleanings are recorded on an iPad app including any potential illicit discharges. Additional training for new staff on how to conduct dry weather inspections was conducted using the existing SOP in permit Year 13.	Train new staff on how to conduct dry weather inspections using the existing SOP and refresh training annually for all staff. Continue outfall inspections on iPad app for potential illicit discharges. Continue to track materials from catch basin cleanings and note any suspect illicit discharges.
Revised	Screen Outfalls for Illicit Discharges	DPW	Record of inspections & follow-up actions - we have implemented a mobile data form for inspections		
ID3	Prohibit illicit discharges	DPW/BoH	Establish regulatory mechanisms to prohibit by 4/06	The Illicit Discharge Bylaw (Article XLVII of the General Bylaws) was adopted in May 2008. The Town amended the Bylaw at the October 25, 2011 Special Town Meeting to revise language related to enforcement. The Town plans to review all bylaws in 2017.	No further action needed.
Revised	Develop a Local Illicit Discharge Prohibition		Spring 2008		

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
ID4	Cost of illicit discharges	DPW	Plan for removal options	See BMP ID2. The cost of the illicit discharge removal was not tracked. Culvert inspections were also done in permit year 14.	Address illicit discharges as they are discovered. Continue inspecting culverts.
ID5	Eliminate illicit discharges	DPW	Show # of re-routed connections	Approximately 2-3,000 feet of pipe to be investigated by TV on Pearl, High, Highland, and Washington Streets in Spring 2017.	Address illicit discharges as they are discovered.
Revised	Illicit Discharge Removal Options		Illicit discharges removed within 1 year of discovery	An I/I study is currently ongoing and flow meters have been installed.	

3a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
ID6	Public Education for Illicit Discharges	SWSC & DPW	Distribute education materials at least annually	The “Stormwater Information” webpage under the DPW home page continued to include information related to illegal dumping, associated impacts to waterways, and the Stormwater Hotline. Information targeting a variety of types of illicit discharges is presented in the various education materials discussed under BMP PE1. Flyers were distributed to the neighborhood with pet waste dumping into storm drain issues. Along with the flyers notifying the residents of the illicit discharge violation, the DPW posted information on the Town’s website not to throw pet waste into storm.	Continue to promote the use of the Stormwater Hotline to report illicit discharges in an educational brochure distributed to residents, at public events, and public places.
Revised					

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
CRC1 Revised	Establish water quality benchmarks Select Existing Water Quality Criteria	DPW	Develop score sheet and do Rd 1 of testing Water quality criteria selected	The Stormwater Bylaw (Article XLVII of the General Bylaws) was adopted in May 2008. This Bylaw included criteria/requirements to address water quality. The Town amended the Bylaw on October 25, 2011 to revise language related to exempt activities and enforcement. The bylaws are scheduled to be reviewed in 2017. The Town is currently updating the Zoning Bylaw.	See BMP CRC4.
CRC2	Site Inspection Criteria	DPW	Develop site inspection criteria by 5/05	Water, Sewer, and Highway Departments conduct inspections on all of their projects using the standardized	Continue to inspect all sites, review the inspection form and update as necessary.

Revised			Standardized inspection form	<p>inspection form.</p> <p>Water, Sewer, and Highway Departments also continued to conduct inspections of the Ayer-Shirley Regional High School construction project and the Pingry Hill development project. Note that the Pingry Hill project is administered by the Conservation Commission but inspected by DPW. These projects are now complete. The Town accepted additional roads in Fall 2015 and inspected the storm drain systems. The Town's consultant conducted inspections for a subdivision off of Willow Road, Pingry Hill, Nashua Street, and Pleasant Street. These projects are ongoing.</p> <p>Information collected in the inspection forms and reports is continuously entered into the Town GIS. Electronic versions of the reports will be implemented for more frequent inspections and automatic upload into the GIS system.</p>	Continue to use an electronic version of the reports for more frequent inspections and automatic upload into the GIS system.
BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
CRC3	Staff training re site inspections	DPW	Train all applicable staff by 5/06	Staff are trained on-site inspections. No training grants were received in Year 14. Training is done on an informal basis and through outside programs.	Continue to update training annually for all staff using existing curriculum, through joint training sessions or outside resources.
Revised			Training program & record of staff trained		
CRC4	Tighten regulatory controls	DPW/ConsCom	Review existing regs and propose updates as needed by 5/06	The draft regulations to be implemented under the Stormwater Bylaw were updated by the Stormwater Committee and remain under consideration by the Committee. The Town began reviewing and coordinating with the pending updates of the Planning Board subdivision regulations and Zoning Bylaw.	Continue to push the draft regulations forward through the Planning Board.
Revised	Develop Requirements for Sites >1 acre		Spring 2008		

CRC5	Maximum compliance	DPW	Achieve overall compliance	All projects were adequately controlled. DPW will continue to evaluate best practices to track erosion and sediment control activities performed by the Town.	Continue to inspect and address erosion and sediment control issues and record corrective actions.
Revised	Erosion & Sediment Control Compliance		Record of inspections & follow-up actions		

4a. Additions.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
CRC6	Construction Waste Mgt	DPW/Building Dept.	# of inspections in 2006	Inspections at on-going construction sites were completed and construction waste was controlled as needed.	Continue to coordinate inspections with BMPs CRC2 and CRC5 and record corrective actions.
Revised			Record of inspections & follow-up actions		
CRC7	Establish a Procedure for the Receipt of Information Submitted by the Public	SWSC/DPW	# of issues reported, record of enforcement actions	No calls were received for Year 14. Typically the Conservation Commission receives calls regarding sites subject to the Wetlands Protection Act.	Continue to log calls and address construction site erosion issues.
Revised					

5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
RC1	ID BMPs	DPW/ConsCom /Planning Board	Review existing regs and draft new as needed by 12/05	The Stormwater Bylaw was adopted in May 2008. This Bylaw included criteria/requirements to address BMP design. The draft regulations to be implemented under the Stormwater Bylaw remained under consideration. As noted above, the Town began reviewing and coordinating with the pending updates of the Planning Board regulations and Zoning Bylaw.	Continue to work towards finalizing and implementing the draft regulations through the Planning Board.
Revised	Incorporate BMP Design Criteria		Fall 2007	The sub division regulations will be examined at the Fall 2017 Town Meeting. These regulations will include LID requirements.	
RC2	Acceptance of new regs/bylaws as needed	DPW/ConsCom /Planning Board	Codify new by 5/06	The Stormwater Bylaw (Article XLVII of the General Bylaws) was adopted in	See BMP RC1.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
Revised	Develop Requirements for Sites >1 acre		Spring 2008	May 2008. The Town amended the Bylaw on October 25, 2011 to revise language related to exempt activities and enforcement.	
RC3 Revised	Construction Waste Mgt	This BMP was removed from this section and added to Section 4, under BMP CRC6 to be consistent with the requirements for construction site management.			
RC4 Revised	Evaluate Water Quality Select Existing Water Quality Criteria	DPW	Round 2 of testing Water quality criteria selected	The Stormwater Bylaw was adopted in May 2008. This Bylaw included criteria/requirements to address water quality.	See BMP RC1.

6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
GH1	Survey facilities and existing practices, etc	DPW	Do self-survey	Municipal industrial facilities were inspected for pollution prevention	Continue existing pollution prevention practices at municipal

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
Revised				<p>practices. Hazardous wastes and materials were contained and stored indoors to avoid stormwater contact.</p> <p>Routine catch basin cleaning was completed in early June 2016. The previous catch basin cleaning stockpile was removed.</p> <p>22 catch basins were repaired and 10 were replaced.</p> <p>BMP construction at two (2) outfalls to ponds (Flannagans Pond and Grove Pond) are planned for Spring 2017. They are located at Oak Ridge Rd and Pirone Park.</p> <p>A new drainage system with deep sump catch basins has been installed on Pleasant street.</p> <p>A new stormwater system with deep sump catch basins is being installed on Washington Street.</p> <p>A new stormwater system with deep sump catch basins for East Main street is currently at 25% design phase.</p> <p>A replacement bridge for the West Main Street Bridge including new drainage over the Nonacoicus Brook is currently in the design phase.</p>	<p>facilities and update based on the results of activities discussed under BMP GH6.</p> <p>Continue to inspect and maintain oil/water separator using the inspection form.</p>
GH2	Develop training manual	DPW	Create manual by 12/04	SPCC, SWPPP and Environment Operation Procedures manuals are in	Continue inspections in accordance with the updated plans.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14	Planned Activities – Next Permit Term
Revised				use. The SWPPP for the Wastewater Treatment Plant (WWTP) was updated in Sept. 2015 and the SPCC Plan for the DPW Facility was maintained.	
GH3	Train Employees	DPW	Train ALL staff by 5/05	Training will be conducted in Summer 2016 for the SWPPP. SPCC Plan and Phase II Pollution Prevention/Good Housekeeping training is also scheduled for Summer 2016.	Update training program as necessary and continue training as part of pollution prevention and good housekeeping program.
Revised			Incorporate new training topics		
GH4	Implement maintenance schedule	DPW	Implement vehicle and facilities maintenance schedule by 5/06	DPW vehicles were maintained to minimize fluid leaks. A garage is currently being installed at the Grove Pond Water Treatment Plant for indoor storage and maintenance of vehicles. A canopy is planned to be built over the gas pumps at the DPW facility in Summer 2017. A new storage garage for the Highway Dept is proposed for 2017 Annual Town Meeting vote.	Continue to ensure maintenance schedules are followed to minimize potential stormwater impacts. Incorporate proper maintenance procedures into the employee training program (BMP GH3).
Revised					
GH5	Evaluate Program	DPW	ID of facilities with controls in place by 5/07	DPW reviewed the need to update existing facility planning and training documents. DPW continued to update and implement plans at the DPW Facility and WWTP.	Re-evaluate municipal facilities and operations and develop/implement BMPs as needed. Continue to evaluate funding sources for program implementation.
Revised			Fall 2007		

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA)

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 14 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
7.1 Revised	TMDL study Evaluate TMDL Studies & Status of Town BMPs to Address Impaired Waters	Department of Defense; NRWA SWSC/DPW	Review Memo and Recommended Next Steps	The next steps for developing a water quality strategy will be evaluated based on the revised Phase II Permit (effective July 1, 2017).	Review the Phase II Permit once finalized and develop an implementation strategy under the new permit and the Town’s SWMP. The Town anticipates that the strategy will consider the goals of the draft TMDL*, available resources, actions currently being undertaken by Ayer, and actions by others. Continue to collect water quality data for water bodies in Town based on available funding. Evaluate data and incorporate results into stormwater management program.
*A draft phosphorus TMDL study is available for the Nashua River, which drains the majority of Ayer.					

Part IV. Summary of Information Collected and Analyzed

The Town has nearly completed the town-wide drainage system map, including outfall locations. Previous mapping efforts resulted in approximately 1,480 structures and 79 outfalls show on the drainage map.

Legal/Regulatory

	In Place Prior to Phase II	Under Review	Drafted	Adopted
Regulatory Mechanism Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination				X
▪ Erosion & Sediment Control				X
▪ Post-Development Stormwater Management				X
Accompanying Regulation Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination			X	
▪ Erosion & Sediment Control			X*	
▪ Post-Development Stormwater Management			X*	

*These regulations will be reviewed in 2017 in conjunction with other Town bylaws and regulations.

Mapping and Illicit Discharges

Outfall mapping complete	(%)	100%*
Estimated or actual number of outfalls	(#)	79
System-Wide mapping complete	(%)	95%
Mapping method(s)		
▪ Paper/Mylar	(%)	95%
▪ CADD	(%)	
▪ GIS	(%)	100% - 6/15
Outfalls inspected/screened	(# or %)	26
Illicit discharges identified	(#)	0
Illicit connections removed	(#) (est. gpd)	0
% of population on sewer	(%)	95%
% of population on septic systems	(%)	5%
*50% outfall mapping complete with GIS; 100% for paper files		

Construction

Number of construction starts (>1-acre)	(#)	4
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	
Site inspections completed	(# or %)	
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and \$)	0
Complaints/concerns received from public	(#)	0

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
Site inspections completed	(# or %)	100%
Estimated volume of stormwater recharged	(gpy)	TBD

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	1/yr
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1/yr
Total number of structures cleaned	(#)	900
Storm drain cleaned	(LF or mi.)	2,500 (est.)
Qty. of cleanings /debris removed from storm sewer infrastructure	(lbs. or tons)	280* tons
Disposal or use of cleanings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Removed by Contractor
Cost of cleanings disposal	(\$)	\$35.50 / ton
*number is sum of sand/debris from both sweeping and storm sewer cleaning		

Operations and Maintenance (con't.)

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	2/yr
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	7/yr (Main Street weekly)**
Qty. of sand/debris collected by sweeping	(lbs. or tons)	280*
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Store, dispose
Cost of sweepings disposal	(\$)	\$35.50 / ton
Vacuum street sweepers purchased/leased	(#)	N/A
Vacuum street sweepers specified in contracts	(y/n)	N/A
*number is sum of sand/debris from both sweeping and storm sewer cleaning		
**street sweeping is conducted once per week during summer months		

Reduction in application on public land of: (“N/A” = never used; “100%” = elimination)		
▪ Fertilizers	(lbs. or %)	N/A
▪ Herbicides	(lbs. or %)	N/A
▪ Pesticides	(lbs. or %)	N/A

Anti-/De-Icing products and ratios	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	ProMelt added to 100% NaCl, sand eliminated*
Pre-wetting techniques utilized	(y/n)	Y
Manual control spreaders used	(y/n)	Y
Automatic or Zero-velocity spreaders used	(y/n)	N
Estimated net reduction in typical year salt application	(lbs. or %)	Unknown*
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	N
*The Ayer DPW continued to use ProMelt and salt without sand to improve the effectiveness of salt treatments without an increase in the salt application rate. This mixture reduces the financial and environmental impacts of sand application and removal (i.e., street sweeping & catch basin cleaning).		